

PedPDX

PORTLAND'S CITYWIDE PEDESTRIAN PLAN



COMMUNITY ADVISORY COMMITTEE

November 28, 2018

PBOT
PORTLAND BUREAU OF TRANSPORTATION



Implementation Toolbox

PedPDX Planning Process



What is the PedPDX Toolbox?

- Implementing strategies and actions
- Guided by PedPDX goals and objectives
- Directly informed by PedPDX analyses, outreach, and engagement
- Inclusive of infrastructure, policy, and programmatic “tools” to advance vision and mission

Organization & Structure

- Strategy (13)
 - Rationale
- Actions (56)
 - Leading Role
 - Coordination
 - Category
 - Nexus with Objectives

DRAFT PedPDX toolbox outline
November 6, 2018

1) STRATEGY: Address crossing gaps in the Priority Pedestrian Network

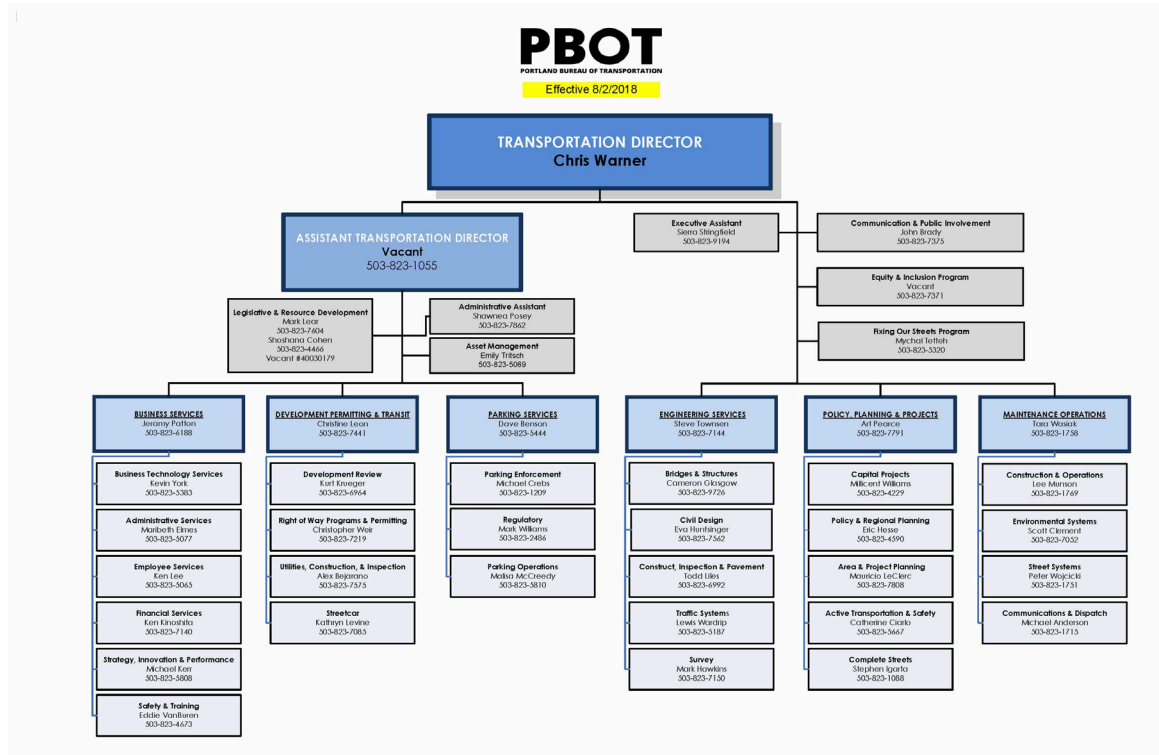
ASSOCIATED ACTIONS	NOTES	IMPLEMENTING ACTION or FUTURE ACTION?	CATEGORY <ul style="list-style-type: none"> • Infrastructure • Policy • Funding • Maintenance • Education • Enforcement 	LEADING ROLE
ACTION: Apply new crossing spacing guidelines as part of PBOT capital projects.	How should crossing spacing guidelines apply to non-PBOT improvements? (e.g., private development, other agencies)	Implementing Action (policy adopted with PedPDX)	Policy Infrastructure	PBOT Capital Delivery Division
ACTION: Address high priority crossing needs identified through PedPDX.		Implementing Action (policy adopted with PedPDX)	Infrastructure Funding	PBOT Pedestrian Coordinator
ACTION: Update the development code to enable and encourage crossing improvements by private development.	To address identified crossing gaps per PedPDX.	Future Action	Policy Infrastructure	PBOT Development Review

2) STRATEGY: Improve visibility of pedestrians at crossings

ASSOCIATED ACTIONS	NOTES	IMPLEMENTING VS. FUTURE ACTION?	CATEGORY	LEADING ROLE
ACTION: Implement parking setback guidelines at uncontrolled crossings in conjunction with PBOT capital projects, development review, and paving projects.	Cutsheet will describe/illustrate new guidelines	Implementing Action (policy adopted with PedPDX)	Policy	PBOT Capital Delivery Division PBOT Development Review PBOT Parking
ACTION: Identify key intersections for retroactive vision clearance improvements by Safe Routes to School, Neighborhood Greenways, Vision Zero, and Pedestrian Network Completion programs		Future Action	Infrastructure	Vision Zero SRTS Neighborhood Greenways
ACTION: Evaluate the need for parking setback guidelines at controlled crossings and on local streets		Future Action	Policy	City Traffic Engineer PBOT Parking
ACTION: Provide pedestrian lighting at marked and unmarked crossings per PBOT's updated lighting level guidelines in conjunction with PBOT capital projects and development review	Reference the lighting-related strategy (described later)	Implementing Action (policy adopted with PedPDX)	Infrastructure	PBOT Capital Delivery Division SSL PBOT Development Review
ACTION: Identify key crossings for retroactive pedestrian lighting improvements by Safe Routes to School, Neighborhood Greenways, Vision Zero, and Pedestrian Network Completion programs		Future Action	Infrastructure	Vision Zero SRTS Neighborhood Greenways SSL PBOT Pedestrian Coordinator

Categories

- Infrastructure
- Policy
- Funding
- Maintenance
- Education
- Enforcement



PedPDX Objectives



Prioritize **investment in areas with the greatest historic underinvestment** in pedestrian infrastructure and with historically under-served populations to reduce disparities in access to safe pedestrian facilities



Complete and maintain a Priority Pedestrian Network that encourages walking for people of all ages, cultures, and abilities, and **connects people to their essential daily needs**



Commit to funding pedestrian network improvements in the Priority Pedestrian Network



Support the City's Vision Zero commitment to **eliminate traffic-related deaths and serious injuries**



Protect the **public safety and personal security** of people walking



Make walking in Portland **a joyful experience** that helps people connect with their community



STRATEGY

Improve visibility of pedestrians at crossings

(This section will further define the strategy's intent and provide a justification for the strategy based on the PedPDX master planning process - such as results from the safety analysis or public input findings that show why we need to improve pedestrian safety within crosswalks.)

IMPLEMENTING ACTIONS

Action	Leading Role	Coordination	Category
A. Update the 1998 pedestrian design guidelines to reflect PedPDX (via Streets 2035).	PBOT		
B. Implement parking setback guidelines at uncontrolled crossings and consider parking setback guidelines for controlled crossings.	PBOT		
C. Address tree code mitigation requirements for trees in the right of way.	PBOT		
D. Provide pedestrian lighting at marked and unmarked crossings to improve visibility.	PBOT		
E. Provide high visibility crosswalks at all marked crossings.	PBOT		
F. Update PBOT design guidance to encourage the use of curb extensions, floating curb extensions, and interim painted curb extensions within the Priority Pedestrian Network.	PBOT		

DRAFT
SAMPLE

Strategy 2 Improve visibility of pedestrians at crossings.

ACTION B

Implement parking setbacks and consider new parking crossings.

Why is this important?

Parking setbacks at intersections provide better visibility of people sharing the road. By keeping a clear area around an intersection crossing the street, both drivers and people crossing the street have an easier time seeing each other. Providing a clear zone at intersections is especially important where children or people using wheel chairs frequently cross, and could otherwise be blocked from view by a parked car.

The length of curb where parking is restricted, "set back," depends on several factors, including the speed of the roadway, presence of a street signal, sight lines of the approaching roadway, and surrounding land use. Up to three spaces may be removed to improve visibility and safety.

PBOT will not remove and set back parking at all intersections. Instead, it will prioritize parking removal on City Walkways, Neighborhood Greenways, federally classified arterial and collector streets, Pedestrian Districts, and the High Crash Network.

Who will lead this?
PBOT Parking Services

Who else will help?
Ibus illab incille necate re natiberum quas nsequos volorporio. Loreperatquo ium ex eruptatus isciat.



PBOT

Strategy 2 Improve visibility of

ACTION D

Provide pedestrian lighting to improve visibility.

Why is this important?

Pedestrian lighting at intersections and along the component of these guidelines because it improves the comfort level of the pedestrian and the comfort level of the pedestrian.

Studies show that the implementation of pedestrian lighting reduces crash rates, improves increasing street users' visibility. Approaching the pedestrian's surroundings and improving the pedestrian's sense of community, pedestrian security. There are also strong links between neighborhoods' sense of community, pedestrian safety. By illuminating dark spaces, street lighting improves pedestrian safety and reduces crime while increasing street activity.

PBOT will update the Street Lighting Standards to ensure that pedestrian intersection lighting is prioritized. Higher lighting levels are required for mid-block pedestrian crossings; sometimes scale lighting is used if overhead lighting is not available.

Who will lead this?
PBOT Street Lighting

Who else will help?
Ibus illab incille necate re natiberum quas nsequos volorporio. Loreperatquo ium ex eruptatus isciat.

¹ Illuminating Engineering Society, 2014. Road Lighting Handbook



PBOT

Strategy 2 Improve visibility of pedestrians at crossings.

ACTION E

Provide high visibility crosswalks at all marked crossings.

Why is this important?

A marked crosswalk signals to motorists that they must stop for pedestrians and encourages pedestrians to cross at designated locations. They also alert drivers of possible pedestrian traffic in the area. Where crosswalks are currently marked and planned in Portland, it is recommended that PBOT continue to install as high visibility crosswalks. In practice, PBOT provides high visibility crosswalks at uncontrolled intersections across Portland. However, because current guidance does not require it, guidance should be updated to match the practice.

Compared to standard crosswalk with two stripes running perpendicular to oncoming traffic, high visibility (or "continental") crosswalks allow drivers to see this space designated for pedestrian crossing from a greater distance. This increased visibility gives drivers more time to safely stop for a pedestrian waiting to cross.

Who will lead this?
PBOT Engineering Services

Who else will help?
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¹ <https://www.portlandoregon.gov/transportation/article/84048>



PBOT



PEDPDX OBJECTIVES



DRAFT
SAMPLE

STRATEGY

Fix crossing gaps in the Priority Pedestrian Network

(This section will further define the strategy's intent and provide a justification for the strategy based on the PedPDX master planning process - such as results from the safety analysis or public input findings that show why we need to improve pedestrian safety within crosswalks.)

IMPLEMENTING ACTIONS

Action	Leading Role	Coordination	Category
A. Apply new crossing spacing guidelines as part of PBOT capital projects and coordinate with ODOT and Multnomah County regarding non-Portland facilities.	PBOT		
B. Implement high priority crossings identified through PedPDX.	PBOT		
C. Facilitate crossing improvements by private development.	PBOT		

DRAFT
SAMPLE

Strategy 1

Fix crossing gaps in the Priority Pedestrian Network.

PEDPDX OBJECTIVES



ACTION A

Apply new crossing spacing guidelines.

Why is this important?

The City of Portland's City Traffic Engineer worked with internal partners to establish spacing guidelines for marked pedestrian crossings. Portland's Vision Zero Action Plan identified the need for such guidelines as a means of identifying gaps in the pedestrian network. The guidelines are intended to identify crossing gaps in Portland's pedestrian network.

Maximum desired distances between marked pedestrian crossings should generally not be exceeded, but the exact location of marked crossings should be context-driven, and will be determined based on pedestrian crossing demand, specific land use generators, sight distance needs, proximity to traffic signals, existing pedestrian crossings, and engineering judgment.

The PedPDX Pedestrian Network Needs Evaluation includes a mapping analysis of street segments and transit stops that do not comply with the interim spacing frequency standards.

Who will lead this?

PBOT Pedestrian Coordinator

Who else will help?

Ibus illab incille necate re natiberum quas modis ent exerio nsequos volorporio. Loreperatquo ium exernatur aligent eruptatus isciat.

Inside Pedestrian Districts:
MAXIMUM SPACING OF
530 feet
between marked crossings



Outside of Pedestrian Districts:
MAXIMUM SPACING OF
800 feet
between marked crossings



At Transit stops:
WITHIN
100 ft





Strategies

13 Strategies

Accessing the Network

1. Address crossing gaps
2. Improve visibility at crossings
3. Reduce turning movement conflicts at intersections
4. Improve safety and comfort at crossings

Improving the Network

5. Cost-effective and creative solutions
6. Adequate street lighting
7. Manage vehicle speeds and improve driver awareness
8. Obstruction-free sidewalks
9. New and emerging technologies
10. Interesting and enjoyable experience
11. Developers, residents, and property owners for improvements

Empowering Pedestrians

12. Public safety concerns for people walking
13. Education for walking safely

Accessing the Network - Strategies

1. Address crossing gaps
2. Improve visibility at crossings
3. Reduce turning movement conflicts at intersections
4. Improve safety for vulnerable road users



Accessing the Network - Strategies

1. Address crossing gaps
2. Improve visibility at crossings
3. Reduce turning movement conflicts at intersections
4. Improve safety and comfort at crossings

What makes walking difficult in PDX?

Citywide

Sidewalks/ walking paths missing on BUSY streets

4.66

Not enough safe places to cross busy streets

4.46

People driving too fast on RESIDENTIAL streets

4.44

People driving too fast on BUSY streets

4.29

Drivers not stopping for pedestrians crossing the street

4.29

Sidewalks/ walking paths missing on RESIDENTIAL streets

3.95

Poor lighting

3.62

Buckled/ cracked/ uplifted sidewalks, or other tripping hazards

3.46

Missing curb ramps at intersections

3.22

Not enough time to cross the street

3.08

Accessing the Network - Strategies

1. Address crossing gaps
2. Improve visibility at crossings
3. Reduce turning movement conflicts at intersections
4. Improve safety and comfort at crossings

Location Type	Percent of Crashes	Percent of KSI Crashes
Signalized Intersections	43.5%	33.4%
Unsignalized Intersections	27.5%	25.5%
Mid-block	25.4%	38.9%
Driveway	3.5%	2.1%
Total	100%	100%

Safety Analysis:

- Crashes at an unmarked location are more likely to occur where marked crosswalks are too far apart to meet the City of Portland's spacing guidelines than where met
- Crashes at marked crossings are more likely to occur where the existing crossing design is deficient
- Crashes at deficient crossings are more likely to result in a KSI

Improving the Network - Strategies

5. Cost-effective and creative solutions

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PedPDX Process:

- Lean toward action
- Geographic equity

Safety Analysis:

- Crashes involving people walking along the roadway are more likely to result in a KSI when they occur in a block with missing sidewalks

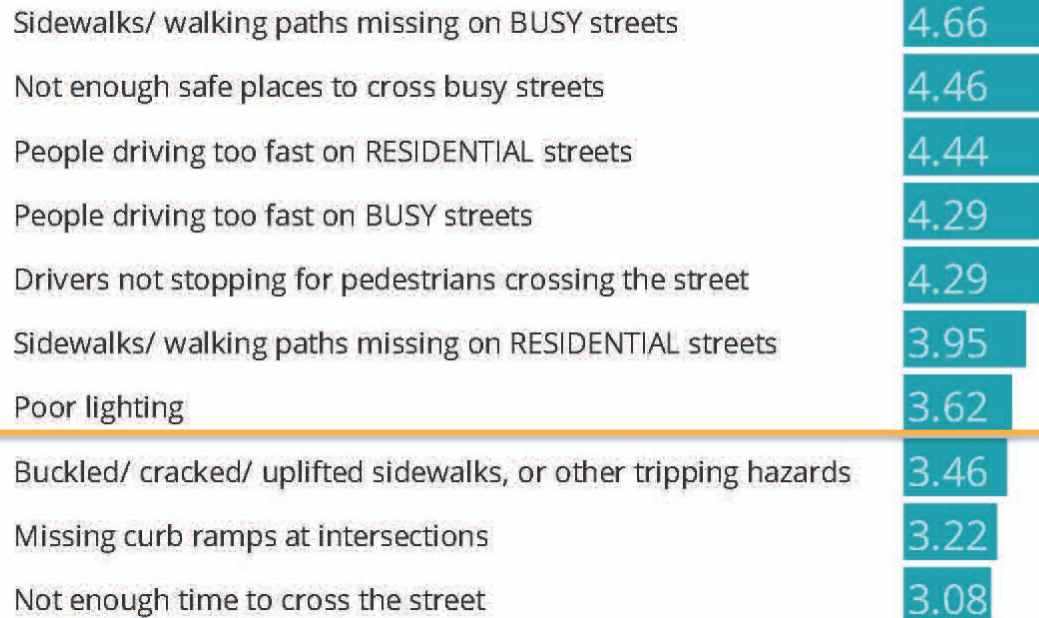
Open-ended Comments:

- Unimproved roads
- Places where bikes and pedestrians share space

Improving the Network - Strategies

6. Adequate street lighting

What makes walking difficult in PDX?



Safety Analysis:

- Pedestrian crashes after dark commonly have streetlights present, suggesting that streetlights alone are not sufficient to ensure motorists and pedestrians see each other

Improving the Network - Strategies

7. Manage vehicle speeds and improve driver awareness

Posted Speed	Crash Occurrence Risk Factor ¹	KSI Crash Risk Factor ²
20-25 mph	0.44	0.81
30 mph	3.61	0.92
35 mph	6.56	1.13
40 – 50 mph	1.01	1.75
Total	1.00	1.00

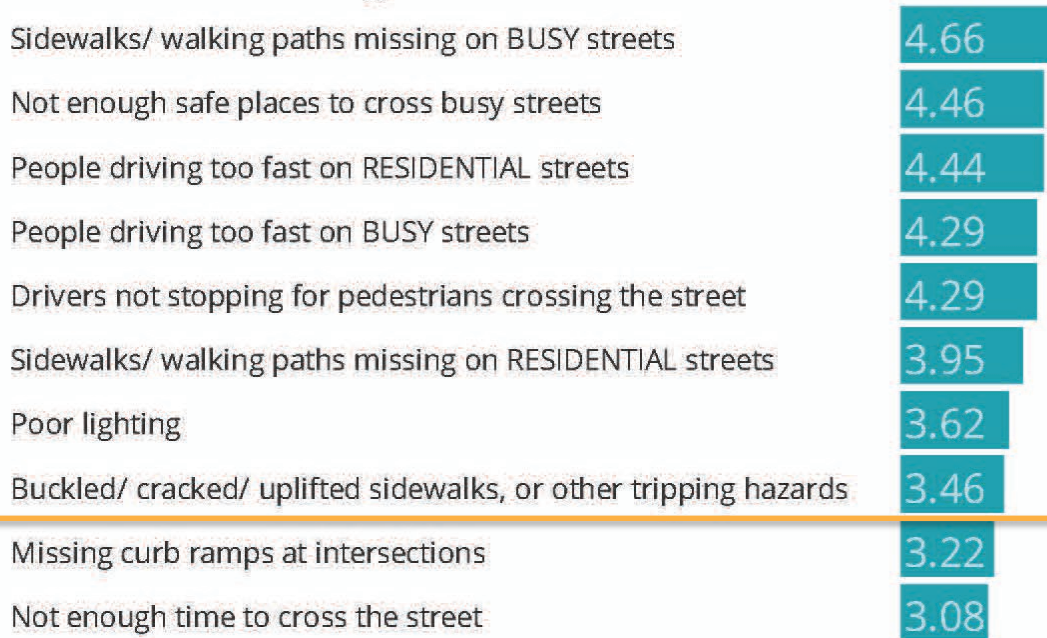
Safety Analysis:

- Driver turning left at signalized intersection fails to yield
- Driver turning right at signalized intersection fails to yield
- Driver going straight at unsignalized intersection fails to yield

Improving the Network - Strategies

8. Obstruction-free sidewalks
9. New and emerging technologies
10. Interesting and enjoyable experience

What makes walking difficult in PDX?



PedPDX Process:

- Joy of walking
- All ages and abilities

Open-ended comments:

- ADA non-compliance
- Construction projects not re-routing pedestrian pathways
- Sidewalks impeded with vegetation and/or garbage

Improving the Network - Strategies

11. Developers, residents, and property owners for improvements

What makes walking difficult in PDX?

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Not enough time to cross the street	3.08

Citywide

PedPDX Process:

- Lean toward action
- Expand funding/resources

Empowering Pedestrians - Strategies

- 12. Public safety concerns for people walking
- 13. Education for walking safely

